

Abstract

A seal ring (1) of a mechanical face seal device for jet engines that is designed for rotation in common with an engine shaft is formed of a composite material comprising a fibre-reinforced ceramic material. The reinforcing fibres may be carbon or SiC fibres, and the ceramic material may be a SiC material. Furthermore, composite seal rings of this type can be provided with pumping structures (20) in the seal face. Brittle fractures of the SiC matrix do not occur so that the seal ring is at least equal to one such consisting of a steel material in regard to the safety function thereof. However, the wear is substantially less and furthermore, there is no need to provide cooling means for the composite seal ring, whereas the known steel seal rings must contain cooling channels through which a cooling agent is caused to flow for cooling purposes.

Fig. 1